THAT WHICH IS CLAIMED IS:

1. Process for splicing of optical fibers, where at least one laser beam (16) is directed towards the optical fibers (10, 11) for thermal splicing of at least two optical fibers (10, 11), **characterized by** a position of an impingement point (28)of each and every laser beam (16) onto the optical fibers (10, 11) in the longitudinal direction of the optical fibers (10, 11) to be spliced being changed for impact on the power density profile on the optical fibers (10, 11) to be spliced, where the impingement point (28) is being periodically moved in a predetermined area (29) around a splicing point (30) of the optical fibers (10, 11) to be spliced.

2. Process according to claim 1, **characterized by** a frequency for the movement of the impingement point (28) onto the optical fibers (10, 11) to be spliced being determined in such a way, that the duration of one period for the moving of the impingement point (28) is shorter than the thermal time constant of the optical fibers (10, 11) to be spliced.

3. Process according to one of the claims 1 or 2, **characterized by** the movement of the impingement point (28) and/or the intensity of the laser beam (16) being modulated for preparation of an optimized power density profile on the optical fibers (10) to be spliced.

4. Process according to claim 3, **characterized by** a curve path or the speed of movement of the impingement point (28) being changed for the modulation of the movement of the impingement point (28) with a preset frequency for the movement of the impingement point (28).

5. Process according to claims 3 or 4, **characterized by** the output of the laser (15) being changed for the modulation of the intensity of the laser beam (16).

6. Process according to on of the claims 3 to 5, **characterized by** the modulation of the intensity of the laser beam (16) being synchronized with the modulation of the movement of the impingement point (28).

7. Device for splicing of optical fibers with a laser (15) for thermal splicing of at least two optical fibers (10, 11), with at least one lens (18) for focusing at least one of the laser beams (16) beamed from the laser (15) and with at least one optical component, especially a mirror (17) for pointing each and every laser beam (16) onto the optical fibers (10, 11) to be spliced, **characterized by** a driver unit (25) for each and every optical component, especially each and every mirror (17), where each and every optical component is movable in such a way by means of the driver unit (25), that a position of an impingement point (28) of each and every laser beam (16) onto the optical fibers (10, 11) to be spliced can be moved periodically in its longitudinal direction.

8. Device according to claim 8, **characterized by** a driver control unit (28) for impacting a curve path or a speed of the movement, respectively, of the impingement point (28) being allocated to the driver unit (25) for each and every movable optical component, especially for each and every mirror (17).

9. Device according to claim 7 or 8, **characterized by** a laser control unit (27) for the modulation of the intensity of the laser beam (16) being allocated to the laser (15).

10. Device according to claim 8 or 9, **characterized by** the driver control unit (26) and the laser control unit (27) being connected to a central control unit (22).